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Q1.

1. My browser is running HTTP version 1.1 in browser. Similarly, my server is also running HTTP version 1.1
2. The language that my browser indicates that it can accept to the server is English (USA)
3. The IP address of my computer is 192.168.0.48 while the that of gaia.cs.umass.edu

Is 178.255.83.1

1. The status code returned from the browser to my sever is 200 OK
2. The HTML file that I was retrieving was last modified on Sat, 17 Mar 2018 17:22:38 GMT at the server.
3. There are 472 bytes of contents being returned to my browser.
4. No, there are no headers within the data that are not displayed in the packet-listing window.

Q2.

1. No there is no “IF-MODIFIED-SINCE” line in the HTTP GET
2. Yes the server explicitly returned the contents of the file. The Line-based text data in the OK response to the GET confirms this. Additionally, I can observe the length of that content.
3. Yes I see an “IF -MODIFIED-SINCE” line in the HTTP GET and this header is followed by “Mon, 19 Mar 2018 05:59:01 GMT”
4. No the server did not explicitly return the contents of the file, as the browser gets code 304. That means “Not modified”. Additionally, no content is included.

Q3.

1. There was one HTPP GET request message sent by my browser and packet number 14 contains the GET message for the Bill of Rights.
2. Packet number 20 contains the response to the HTTP GET request and contains status code 200 OK. I did this by opening the TCP segments in the packet content window and looking for the response that was 200 OK (200 was the status code from the packet and the phrase is OK)
3. 200 OK (200 was the status code from the packer and the phrase is OK)
4. 4 reassembled data containing TCP segments were needed to carry the single HTTP response and the text of the Bill of Rights.

Q4.

1. There are 4 HTTP GET request messages sent by my browser. The destination addresses for the messages are 128.119.245.12 and 128.119.240.90
2. The downloading of the images occurred serially by my browser. It’s clear that requests are being sent consequently. That means each next request is being sent only after getting a response from previous one.

Q5.

1. The server’s response to the initial HTTP get message from my browser is 401 Unauthorized
2. When HTTP GET message is send for the second time by my browser, the new field included is the “Authorization” field.